

IN THE CLAIMS:

1-48. (Canceled)

49. (Previously Presented) A mixing apparatus, comprising:

a cartridge having a first end and a second end and forming an interior cavity, the cartridge having an aperture;

a handle extending through the aperture, the handle having a first end and a second end;

a mixing blade removably coupled to the first end of the handle in the interior cavity;

a quick-release connector operable between the handle and the mixing blade; and

a release button disposed outside of the interior cavity and moveable between a locked position and an unlocked position to operate the quick-release connector, the mixing blade being removable from the handle when the release button is in the unlocked position and being locked to the handle when the release button is in the locked position.

50-51. (Canceled)

52. (Previously Presented) A mixing apparatus, comprising:

- a cartridge forming an interior cavity and defining an aperture;
- a handle extending through the aperture and defining a hollow cavity and having a first end with at least one flange recess;
- a mixing blade removably coupled to the first end of the handle and having a bore and at least one flange extending from the bore for positioning in the at least one flange recess;
- a shaft disposed within the hollow cavity of the handle for releasably coupling the mixing blade to the handle; and
- a release button operatively engaging the shaft and moveable between a locked position and an unlocked position to rotate the shaft relative to the handle such that the mixing blade is removable from the handle when the release button is in the unlocked position and is locked to the handle when the release button is in the locked position.

53-54. (Canceled)

55. (Previously Presented) A mixing apparatus, comprising:

a cartridge having a first end and a second end and forming an interior cavity, the cartridge having an aperture;

a handle extending through the aperture, the handle having a first end and a second end and defining a hollow cavity;

a mixing blade having a bore and at least one flange extending from the bore, the first end of the handle including at least one flange recess for receiving the at least one flange;

a shaft having a first end and a second end and being disposed within the hollow cavity of the handle, the first end of the shaft having at least one projection;

a release button engaged to the shaft, the release button being moveable between a locked position and an unlocked position, the shaft being rotated relative to the handle in response to movement of the release button between the locked position and the unlocked position, the at least one projection being offset from the flange recess when the release button is in the unlocked position, thereby allowing the at least one flange to be inserted into the flange recess, rotation of the release button and shaft towards the locked position causing the at least one projection to engage the at least one flange thereby forcing the at least one flange into the at least one flange recess.

56. (Previously Presented) A mixing apparatus, comprising;

a cartridge defining an interior cavity and an aperture,

a handle having a first end for extending through the aperture into the interior cavity,

a mixing blade for removably coupling to the first end of the handle in the interior cavity,

a quick-release connector operable between the handle and the mixing blade, and

a release button operatively engaging the handle and disposed outside of the interior cavity for operating the quick-release connector by moving the release button between a locked position in which the mixing blade is locked to the handle and an unlocked position in which the mixing blade is removable from the handle.

57. (Previously Presented) A mixing apparatus as set forth in claim 56 wherein the mixing blade defines a bore and the quick-release connector includes at least one flange extending inwardly from the bore and at least one flange recess disposed within the first end of the handle for receiving the at least one flange.

58. (Previously Presented) A mixing apparatus as set forth in claim 57 wherein the handle defines a hollow cavity.

59. (Previously Presented) A mixing apparatus as set forth in claim 58 wherein the quick-release connector further includes a shaft disposed in the hollow cavity and having at least one projection and the release button operatively engages the shaft to rotate the shaft relative to the handle in response to movement of the release button between the locked position and the unlocked position such that the at least one projection holds the at least one flange in the at least one flange recess in the locked position and releases the at least one flange from the at least one flange recess in the unlocked position.

60. (Previously Presented) A mixing apparatus as set forth in claim 56 wherein the mixing blade defines a bore and the quick-release connector includes a collapsible ball operatively engaging the first end of the handle for moving between an expanded position with the ball engaging the mixing blade when the release button is in the locked position and a collapsed position with the ball removable from the bore when the release button is in the unlocked position.

61. (Previously Presented) A method of mixing components of bone cement in a cartridge defining an interior cavity with a removable handle having a release button and a quick-release connector for attaching the removable handle to a mixing blade, said method comprising the steps of:

disposing the components of the bone cement in the interior cavity of the cartridge;

agitating the components with the mixing blade in the interior cavity to form the bone cement;

actuating the release button and releasing the mixing blade from the removable handle in the interior cavity; and

removing the removable handle from the interior cavity through an aperture in the cartridge while the mixing blade remains in the interior cavity.